

PECTIS PIMANA (ASTERACEAE: TAGETEAE):
A NEW SPECIES FROM NORTHWESTERN MEXICO

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ABSTRACT

Pectis pimana is a new species of west-central Chihuahua, Mexico. It is most closely related to *P. filipes* of sect. *Pectothrix* from which it differs most conspicuously by its 8-rayed instead of 5-rayed heads and more numerous pappus awns.

RESUMEN

Pectis pimana se describe como nueva especie del parte oeste-central de Chihuahua, México. Está emparentada lo más cercana con *P. filipes* de la Sección *Pectothrix*, de cual se distingue por sus cabezuelas con 8 rayas en vez de 5, y por sus aristas del vilano más numerosas.

During recent ethnobotanical investigations among the Mountain Pima Indians of Chihuahua, Mexico, a native Pima consultant brought to Laferrière a specimen of *Pectis* that could not be assigned to any known taxon. It is herein described as a new species.

Pectis pimana Laferrière & Keil, sp. nov. (Fig. 1).—TYPE: MEXICO: Chihuahua, Mpio. Temósachi, Nabogame, 28°30'N, 108°30'W, growing in pasture, 1800 m, Sep 1988, *Laferrière and Alvarez 2013* (holotype, ARIZ; isotypes: MEXU, OBI).

Pectidi filipedi affinis a qua imprimis differt phyllariis radiisque capitulorum 8 et pappo pluriaristato.

Strongly scented, tap-rooted annuals. Stems 1–several from the base, 10–20 cm long, erect, cymosely branched above, sparingly and minutely scaberulous at the nodes, otherwise glabrous. Leaves linear, 10–25 mm long, 1–2.8 mm wide, often revolute, proximally ciliate with 3–7 pairs of reddish-brown bristles 2–4 mm long, puberulent on margins and on abaxial surface of midrib, submarginally punctate with conspicuous elliptic to rounded glands 0.2–0.5 mm diameter. Heads solitary and terminal or in diffuse cymes, 6–8 mm tall, 5–10 mm diameter; peduncles 1.5–5 cm long, glabrous, bearing 3–5 scat-

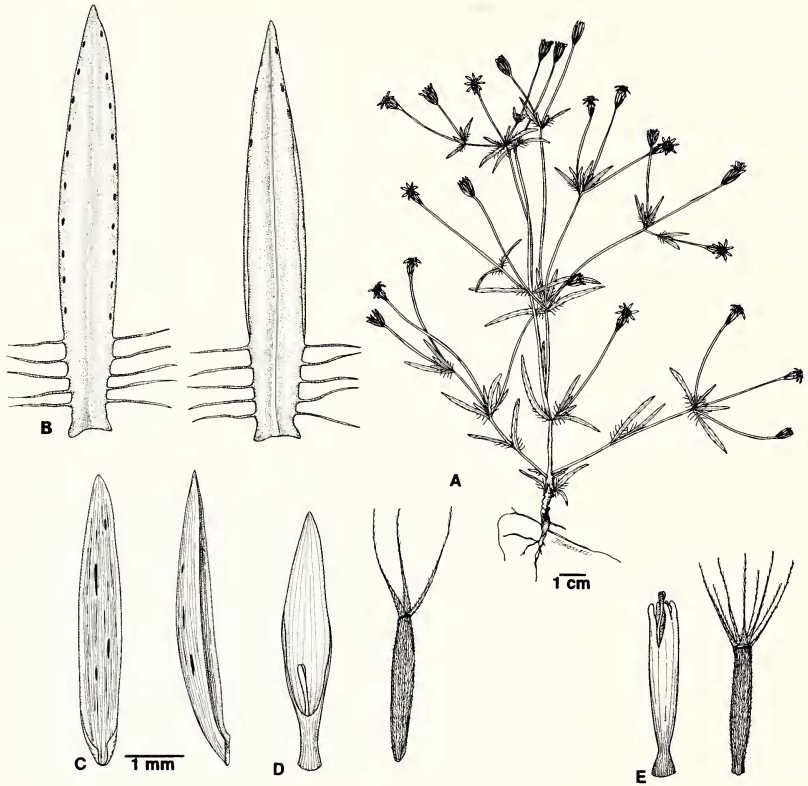


FIG. 1. *Pectis pimana* Laferrière & Keil. A. Habit. B. Leaves (adaxial and abaxial surfaces). C. Phyllaries (abaxial surface and lateral view). D. Ray corolla and achene. E. Disk corolla and achene. C-E, same scale. Drawn from isotype at OBI.

tered reddish-brown, lanceolate bractlets 1–2 mm long. Involucres cylindric or narrowly campanulate; phyllaries 8, linear, 5–7 mm long, 0.5–0.7 mm broad, not or scarcely overlapping, obtuse, abaxially rounded with a basally gibbous midrib, inconspicuously punctate with elongated submarginal glands, the margin narrowly hyaline, distally villous-ciliolate. Ray florets 8; corollas bright yellow, 3–4.5 mm long, glabrous, tube 1–1.5 mm long, ligules 2–2.5 mm long. Disk florets 10–15; corollas 3–3.5 mm long, the tube and throat not well differentiated externally, together 2.2–2.7 mm long, the limb 0.8 mm long, weakly bilateral with the anterior lip ca. 2× the length of the 4 lobes of the posterior lip. Achenes 3–4 mm long, strigillose with straight bicellular hairs 0.1–0.2 mm long. Pappus of 3 (ray) or 4–5 (disk) slender subequal awns 3–3.5 mm long, sometimes with

1–5 additional, shorter, more slender awns. Chromosome number unknown.

The new species is named for the Mountain Pima inhabitants of the region where it occurs. The plant is called “hierba de la hormiga” because it is said to smell like ants. A tea made from the leaves is used to treat fever.

Distribution. *Pectis pimana* is known only from the type collection from extreme west-central Chihuahua, ca. 18 km NW of Yepachi and 10 km E of the Sonoran border. The plant was found growing in grassy fields where it is apparently uncommon. Vegetation of surrounding areas is a pine-oak forest dominated by *Quercus chihuahuensis* Trel., *Q. viminea* Trel., and *Pinus engelmannii* Carrière.

Relationships. *Pectis pimana* is a member of sect. *Pectothrix* A. Gray and is most similar and closely related to *P. filipes* Harv. & A. Gray, differing by its 8-rayed rather than 5-rayed heads and 3–5(–8) rather than 0–3 principal pappus awns. *Pectis filipes* var. *subnuda* Fern. occurs in similar habitats and at similar elevations in the Sierra Madre Occidental of Chihuahua (Keil 1977) but has not been found in the vicinity of Nabogame.

Because of its 8-rayed heads and aristate pappus, the new species would key to either *P. pringlei* Fern. or *P. stenophylla* A. Gray var. *rosei* (Fern.) Keil in Keil's (1977) revision of sect. *Pectothrix*. *Pectis pringlei*, a Chihuahuan Desert species, differs from the new species in having broader phyllaries with prominent subterminal glands, larger, more conspicuous ray corollas, radially symmetric disk corollas, and fewer, stouter pappus awns. *Pectis stenophylla* var. *rosei*, known only from its type collection in southeastern Sonora, has much smaller heads and fewer pappus awns than does *P. pimana*.

ACKNOWLEDGMENTS

This work was funded by NSF doctoral dissertation grant BNS-8601399 to Laferrière and Dr. Willard Van Asdall. We thank Alfonso Alvarez, Billie Turner, Guy Nesom, Chuck Mason, Becky Van Devender, Richard Felger, and Matt Thompson for valuable advice and assistance. Joanna Tomassacci prepared the illustration.

LITERATURE CITED

KEIL, D. J. 1977. A revision of *Pectis* section *Pectothrix* (Compositae: Tageteae). *Rhodora* 79:32–78.

(Received 12 Dec 1990; revision accepted 23 Feb 1991.)